WHAT IS CLAIMED IS:

1. A mold for optimizing molding time to form a molded article, said mold containing a plurality of mold portions forming a mold cavity having cavity surfaces in a shape of said molded article, said mold portions comprising:

(1) at least one mold die having at least one primary booster adjacent to and in thermal communication therewith, said mold die providing structural support for said primary booster;

(2) said primary booster being disposed in the mold cavity and forming at least a part of the cavity surfaces, the primary booster being made of material whose mathematical product of thermal conductivity, density, and specific heat is no more than 2.0 x 10^{-6} $BTU^2/sec/in^4/°F^2$ at room temperature, and having predetermined thicknesses (W_b) as calculated from the equation

$$W_b = Y\sqrt{\frac{k_b t_f}{\rho_b C_b}} \qquad 0.25 \leq Y \leq 4.0$$

where t_f is a time to fill the mold, k_b is thermal conductivity, ρ_b is density, and C_b is specific heat of the primary booster; and,

(3) thermal control means for applying temperature control stimuli to the mold die.

2. The mold of claim 1, wherein the primary boosters vary in thickness at different locations on the cavity surfaces.

3. The mold of claim 1, further comprising edge temperature boosters on the cavity surfaces, the edge temperature boosters being made of materials whose mathematical product of thermal conductivity, density, and specific heat is no more than 2.0 x 10^{-6} $BTU^2/sec/in^4/°F^2$ at room temperature.

4. The mold of claim 1, wherein the molded article is an optical disc.

5. The mold of claim 1, further comprising secondary boosters, the secondary boosters being located between at least a part of said primary boosters forming the cavity surfaces, and said mold dies, the secondary boosters being in thermal communication with both the primary boosters and the mold dies, the secondary boosters being made of materials whose mathematical product of thermal conductivity, density, and specific heat is less than that of the adjacent primary boosters, whereby the secondary boosters restrict heat flow from the primary boosters for improving build-up of heat in the primary boosters, the secondary boosters having thicknesses (W_{sb}) as calculated from the equation

$$W_{sb}=Z\sqrt{\frac{k_{sb}t_f}{\rho_{sb}C_{sb}}} \qquad 0.025 \le Z \le 4.0$$

where t_f is the time to fill the mold, k_{sb} is the thermal conductivity, ρ_{sb} is the density, and C_{sb} is the specific heat of the secondary booster.

6. The mold of claim 5, wherein said primary and secondary boosters have differing thicknesses at different locations, causing different heat flow from the cavity surfaces to the mold dies at the different locations.

7. The mold of claim 5, further comprising a stamper forming at least a part of the cavity surfaces, said stamper being in thermal communication with at least one said primary booster.

8. The mold of claim 7, further comprising a stamper heating means.

9. A mold for optimizing molding time to form a molded article, said mold containing a plurality of mold portions forming a mold cavity having cavity surfaces in a shape of said molded article, said mold portions comprising:

(1) at least one mold die having at least one primary booster adjacent to and in thermal communication therewith, said mold die providing structural support for said primary booster;

(2) said primary booster being disposed in the mold cavity and forming at least a part of the cavity surfaces, the primary booster being made of material whose mathematical product of thermal conductivity, density, and specific heat is no more than 2.0 x 10^{-6} $BTU^2/sec/in^4/°F^2$ at room temperature, and having predetermined thicknesses (W_b) as calculated from the equation

$$W_b = Y\sqrt{\frac{k_b t_f}{\rho_b C_b}} \qquad 0.25 \le Y \le 4.0$$

where t_f is a time to fill the mold, k_b is thermal conductivity, ρ_b is density, and C_b is specific heat of the primary booster;

(3) thermal control means for applying temperature control stimuli to the mold die;

(4) a stamper forming at least a part of the cavity surfaces, said stamper being in thermal communication with at least one said primary booster; and,

(5) a stamper heating means.

10. The mold of claim 9, wherein the heating means is at least partially thermally insulated from the mold die.

11. The mold of claim 9, wherein the heating means is electrical resistive heating.

12. The mold of claim 9, wherein the stamper heating means is located in the mold die substantially adjacent to a periphery of the primary booster and in thermal communication with the stamper.

13. The mold of claim 9, wherein the molded article is an optical disc.

14. The mold of claim 9, wherein the stamper heating means is located in the mold die of an optical disc mold in a vicinity of an outer diameter of the cavity and in thermal communication with the stamper.

15. A stamper heating means for uniformly cooling a molded article during a molding process, wherein the stamper heating means is located in a mold die substantially adjacent to a periphery of a primary booster, said stamper heating means being used to locally increase the temperature of a molding stamper to substantially reduce heat flow from a mold cavity through a stamper to portions of a mold beyond the outer diameter of the mold cavity.

16. The stamper heating means of claim 15, wherein the heating means is at least partially thermally insulated from the mold die.

17. The stamper heating means of claim 15, wherein the heating means is electrical resistive heating.

18. A stamper heating means for uniformly cooling a molded article during a molding process, wherein the stamper heating means is located in the mold die of an optical disc mold in a vicinity of an outer diameter of a mold cavity, said stamper heating means being used to locally increase the temperature of a molding stamper to substantially reduce heat flow from the mold cavity through a stamper to portions of a mold beyond the outer diameter of the mold cavity.

19. The stamper heating means of claim 18, wherein the heating means is at least partially thermally insulated from the mold die.

20. The stamper heating means of claim 18, wherein the heating means is electrical resistive heating.

21. A method of uniformly cooling a molded article during the molding process, wherein a stamper heating means is used to locally increase the temperature of a molding stamper to substantially reduce heat flow from a mold cavity through a stamper to portions of a mold beyond the outer diameter of the mold cavity.

22. The method of claim 21, wherein the stamper heating means is at least partially thermally insulated from the mold die.

23. The method of claim 21, wherein the stamper heating means is electrical resistive heating.

24. The method of claim 21, wherein the stamper heating means is located in the mold die substantially adjacent to a periphery of the primary booster and in thermal communication with the stamper.

25. The method of claim 21, wherein the molded article is an optical disc.

26. The method of claim 21, wherein the stamper heating means is located in the mold die of an optical disc mold in a vicinity of an outer diameter of the cavity and in thermal communication with the stamper.